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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,673	11/29/2001	Mou-Chung Ngai	PG16044P0231US	4596
32116	7590	12/05/2003	EXAMINER	
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661			PIERCE, JEREMY R	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/997,673	NGAI, MOU-CHUNG	
	Examiner	Art Unit	
	Jeremy R. Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 21, 2003 has been entered.

Response to Amendment

2. Applicant's amendment cancels claims 1-4, 8-13, and 15. New claims 16-20 have been added. Claims 16-20 are the currently pending claims.

3. The Affidavit under 37 CFR 1.132 filed on October 4, 2003 is insufficient to overcome the rejection of claims 16-20 based upon 35 USC 112 as set forth in the last Office action because: the Affidavit argues that the specification teaches that surface abrasive enhancement results from the binder forming surface junctions. However, the specification does not teach how surface junctions are formed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 16 recites the expansive surface of the nonwoven fabric as "having a binder applied thereto, and, consequently, enhances surface abrasiveness of the expansive surface having binder applied thereto." The specification does not enable one skilled in the art to make the invention because there is nothing in the claims or specification that indicates what might constitute a binder composition that performs the function of enhancing surface abrasiveness. There is no guideline in the specification as to what binder might meet the desired abrasiveness sought by the Applicant in this invention.

6. Claims 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 16 recites "wherein the binder, where applied and when cured, forms surface junctions in the fibrous matrix at the expansive surface." However, the specification does not teach that surface junctions are formed as a result of applying

and curing binder. Although surface junctions are discussed in the specification, there is nothing that teaches the manner in which they are formed.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites a binder that enhances surface abrasiveness when applied and cured. How does the binder composition enhance surface abrasiveness? Is the binder composition itself formed of material that is abrasive? Does the binder composition only act to stiffen the fibers of the nonwoven surface? What type of binder is required to meet the abrasiveness requirement? In the art of fabrics, "binder" would encompass any number of things that are capable of adhering to a fabric. Abrasiveness is a relative term. The Examiner will assume that any material that adheres to a fabric substrate would meet the "abrasiveness" limitation of the claims, since any small amount of increased abrasiveness would be enhancing the surface abrasiveness of a fabric.

9. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites "wherein the binder, where applied and when cured, forms surface junctions in the fibrous matrix at the expansive surface." What is a surface

junction? Does it comprise a crossover point of fibers? Or is binder required in its formation?

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (U.S. Patent No. 6,103,061).

Anderson et al. disclose a hydraulically entangled nonwoven fabric comprising two layers and a bonding material applied to one side of the web (column 2, lines 28-36). With regard to claims 19 and 20, the binding material may be applied by spraying (column 13, lines 5-7) in a pre-selected pattern (column 14, lines 38-59).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Buyofsky et al. (U.S. Patent No. 4,810,568).

Anderson et al. do not disclose an intermediate layer between the first and second layers. Buyofsky et al. disclose a nonwoven composite used as a wipe with excellent abrasion resistance, dimensional stability, and absorbency (column 1, lines 47-60). Two entangled layers are coated with an abrasive binder, and then laminated together with a thermoplastic reinforcement layer in-between, which offers dimensional stability to the composite (column 2, lines 36-64). It would have been obvious to one having ordinary skill in the art to use a reinforcement layer in the nonwoven composite of Anderson et al. in order to increase the dimensional stability of the composite, as taught by Buyofsky et al. Anderson et al. do not disclose the binder material to abate from one layer to the next.

14. Claims 16-20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Welch et al. (U.S. Patent No. 6,022,818) in view of Wong et al. (U.S. Patent No. 5,213,588).

Welch et al. disclose a hydroentangled nonwoven fabric formed from two different fiber sources (column 2, lines 34-37). One surface is made of matrix fibers, such as polyester (column 2, line 51), and the other surface is made of absorbent fibers, such as cellulosic fibers and rayon (column 4, lines 38-40). Welch et al. do not teach applying an abrasive coating to the fabric for cleansing purposes. Wong et al. disclose adding abrasive particles in a coating to nonwoven wiping materials to enhance soil and stain removal performance (column 1, lines 64-68). Wong et al. further suggest that the

abrasive coating of their invention can be applied to any conventionally fashioned nonwoven sheet with suitable characteristics (column 3, lines 65-68). It would have been obvious to one having ordinary skill in the art to apply the abrasive coating provided by Wong et al. to the nonwoven fabric taught by Welch et al. in order to create a cleaning wipe with enhanced soil and stain removing properties. With regard to claims 19 and 20, Wong et al. disclose applying the abrasive coating in a pattern onto the nonwoven fabric (column 2, lines 52-55). A coating applied in a pattern is scattered across the fabric in a non-random fashion. With regard to claim 18, Welch et al. disclose a second layer of synthetic matrix fibers can be added to the first layer of matrix fibers, thus making the first layer an intermediate layer.

Response to Arguments

15. Applicant's arguments filed August 21, 2003 have been fully considered but they are not persuasive.

16. Applicant argues that the current claims are not susceptible to the 35 USC 112 rejections that the previous claims were rejected under. The Examiner disagrees, as set forth above.

17. Applicant argues that none of the claims contemplate adding abrasive particles to the coating. However, Applicant's claims do not preclude abrasive particles from being present in the invention.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JRP
jrp

Elizabeth M Cole

ELIZABETH M COLE
SUPERVISOR